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Message Text

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65
ORIGIN NRC-07

INFO OCT-01 ARA-10 EUR-12 EA-09 NEA-10 IO-11 ISO-00 FEA-01

ACDA-10 CIAE-00 INR-07 L-03 NSAE-00 NSC-05 EB-07

OES-05 DODE-00 ERDA-07 COME-00 SS-15 /120 R

DRAFTED BY USNRC:RASTELLA
APPROVED BY OES/NET/IM:DBHOYLE
EA/RA - W. GIM
EUR/RPE - G. WOLFE
NEA/RA - H. MONTGOMERY
ARA-LA/BR - R. ELTZ
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P 032142Z FEB 76
FM SECSTATE WASHDC
TO AMEMBASSY BERN PRIORITY
AMEMBASSY BONN
AMEMBASSY BRASILIA
AMEMBASSY BRUSSELS
AMEMBASSY COPENHAGEN
AMEMBASSY MADRID
AMEMBASSY HELSINKI
AMEMBASSY MEXICO
AMEMBASSY NEW DELHI
AMEMBASSY PARIS
AMCONSUL RIO DE JANEIRO
AMEMBASSY ROME
AMEMBASSY SEOUL
AMEMBASSY STOCKHOLM
AMEMBASSY TAIPEI
AMEMBASSY TEHRAN
AMEMBASSY THE HAGUE
AMEMBASSY TOKYO
AMEMBASSY VIENNA
USMISSION EC BRUSSELS
USMISSION OECD PARIS
USMISSION IAEA VIENNA

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PASS SCI COUNSELORS AND ATTACHES

E.O. 11652: N/A

TAGS: TECH

SUBJECT:NRC EVALUATES TEST RESULTS ON BWR CONTAINMENT SYSTEMS

REF: A-219

1. MISSIONS ARE REQUESTED TO PASS THE FOLLOWING INFORMATION TO NUCLEAR REGULATORY COMMISSION TECHNICAL NOTIFICATION ADDRESSEES PER REFAIR A-219.

2. THE NUCLEAR REGULATORY COMMISSION'S PRELIMINARY REVIEW OF INFORMATION ON 18 BOILING WATER REACTORS USING CONTAINMENT OF THE "MARK I" TYPE SHOWS NO NEED FOR SHUTDOWN OR IMMEDIATE MODIFICATIONS. NRC SOUGHT THE INFORMATION AS A RESULT OF QUESTIONS AS TO THE INTEGRITY OF THIS TYPE OF CONTAINMENT UNDER CERTAIN ACCIDENT CONDITIONS. A 19TH REACTOR--VERMONT YANKEE-- WAS VOLUNTARILY SHUT DOWN LAST TUESDAY BY THE UTILITY WHILE IT EVALUATES DATA RECEIVED FROM THE GENERAL ELECTRIC COMPANY ON CONTAINMENT PERFORMANCE IN THE EVENT OF A SUDDEN AND LARGE LOSS-OF-COOLANT ACCIDENT. THIS TYPE OF ACCIDENT IS A VERY LOW PROBABILITY EVENT. VERMONT YANKEE'S DESIGN AND OPERATING CHARACTERISTICS DIFFER FROM THOSE OF THE OTHER 18 REACTORS.

3. NRC'S REVIEW OF THE VERMONT YANKEE SITUATION IS CONTINUING. SOME CHANGES MAY BE REQUIRED AT THE OTHER BWR PLANTS AS THE REVIEW OF THE GE TEST RESULTS CONTINUES, BUT THESE MODIFICATIONS COULD BE MADE ON A SCHEDULED BASIS OR IN SOME INSTANCES WHILE THE REACTORS CONTINUE TO OPERATE. NO DERATING OF THE PLANTS WOULD BE INVOLVED. SPECIFICALLY, THE NRC IS INTERESTED IN THE EFFECTS OF THE HYDRODYNAMIC FORCES ON THE 'SUPPRESSION POOL" IN A BWR, AND WHETHER THESE FORCES MIGHT IMPAIR THE FUNCTIONING OF REACTOR SAFETY SYSTEMS. THE POOL WOULD BE USED TO REDUCE UNCLASSIFIED

PRESSURE IN THE REACTOR CONTAINMENT IN THE EVENT OF A LOSS-OF-COOLANT ACCIDENT, AND ALSO IT IS USED WHEN THE RELIEF VALVES ARE OPENED TO DEPRESSURIZE THE REACTOR.

4. LAST APRIL, THE NRC REQUESTED ADDITIONAL INFORMATION ON THE DESIGN OF CONTAINMENT STRUCTURES FROM 16 UTILITIES OPERATING 19 BWRS WITH MARK I CONTAINMENT, AND FROM ANOTHER UTILITY OPERATING A BWR WITH AN EARLY PRESSURE-

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SUPPRESSION DESIGN CONTAINMENT THAT IS NOT A MARK I SYSTEM. SINCE THAT TIME, GE, IN CONJUNCTION WITH A UTILITY GROUP, HAS CONDUCTED AN EVALUATION PROGRAM WHICH INCLUDED A SERIES OF 1/12TH-SCALE MODEL TESTS TO DEVELOP NEW INFORMATION ON THE EFFECTS OF HYDRODYNAMIC FORCES ON THE SUPPRESSION POOLS UNDER ACCIDENT CONDITIONS. THE NRC STAFF HAS HAD EXTENSIVE DISCUSSIONS ON THE NEW RESULTS THIS WEEK WITH BOTH GE AND REPRESENTATIVES OF THE UTILITIES. BASED ON THESE DISCUSSIONS AND ITS REVIEW OF THE INFORMATION, THE NRC STAFF IS OF THE VIEW THAT THE HYDRODYNAMIC FORCES WHICH MIGHT RESULT FROM A LOSS-OF-COOLANT ACCIDENT INVOLVING A SUDDEN LARGE BREAK IN RECIRCULATION PIPES WOULD NOT LIKELY AFFECT THE CONTAINMENT INTEGRITY OR THE FUNCTION OF OTHER EMERGENCY SYSTEMS IN 18 OF THE LICENSED BWRS WITH MARK I CONTAINMENTS. THE STAFF WILL CONTINUE TO MAKE MORE DETAILED REVIEWS TO CONFIRM THIS ASSESSMENT.

5. THE VERMONT YANKEE NUCLEAR POWER CORPORATION VOLUNTARILY SHUT DOWN ITS VERNON PLANT AS A PRECAUTION JANUARY 27 TO EVALUATE THE TEST RESULTS IT HAD JUST RECEIVED FROM GE. BEFORE THE FACILITY RESUMES OPERATION, THE NRC STAFF WILL REVIEW FURTHER INFORMATION AND PROPOSALS TO BE SUPPLIED BY THE UTILITY. INGERSOLL

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